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Serial No. 09/939,518
Filing Date: 08/24/2001
Practitioner's Docket No.: 1372.34

Group Art: 1635
Examiner: Jon E. Angell

AMENDMENT TO THE CLAIMS:

1. (Currently Amended) A method for facilitating the delivery of a desired molecule into a target tissue comprising the steps of:

introducing a molecule into a target tissue comprising a cell; and

applying ~~a substantially continuous low level~~ an electric field to the target tissue ~~for a duration~~ ~~sufficient~~, the application of the electric field consisting of a single continuous low-level electric field applied for a duration of 100ms to 20 minutes to effect a change in porosity of the cell of the target tissue sufficient to facilitate entry of a desired molecule into an interior of the cell.

2. (Currently Amended) The method recited in Claim 1, wherein the duration of the applying step ~~comprises a duration of at least 100m seconds~~ is in a range of 100ms to 100 sec.

3. (Cancelled)

4. (Original) The method recited in Claim 1, wherein the low-level electric field has a field strength comprising 200V/cm or less.

5. (Cancelled)

6. (Original) The method recited in Claim 1, wherein the electric field comprises a pulse selected from a group of waveforms consisting of square, rectangular, exponentially decaying, exponentially increasing, bipolar, and sinusoidal; waveforms having a nongeometrically characterizable shape; waveforms characterizable by a mathematical function; waveforms characterizable by a mathematical approximation; waveforms with at least one

of an AC or a DC offset signal; and waveforms without an AC or a DC offset signal.

7. (Cancelled)

8. (Original) The method recited in Claim 1, wherein the introducing step comprises the step selected from a group consisting of syringe injection, jet injection, oral dosing, transdermal delivery, infusion into tissue, and infusion into a blood vessel.

9. (Cancelled)

10. (Original) The method recited in Claim 1, wherein the target tissue is selected from a group consisting of skin, tumor, muscle, blood, blood vessel, brain, lymph, liver, pancreas, bone, colon, cardiac, lung, breast, testes, cornea, prostate, and intestine.

11. (Currently Amended) A system for facilitating the delivery of a desired molecule into a target tissue comprising:

a molecule introducer adapted to introduce a molecule into a target tissue comprising a cell; and

an applicator for applying ~~at least one substantially continuous~~ an electric field to the target tissue, wherein the application of the electric field consists of applying a single continuous low-level electric field for a duration of 100ms to 20 minutes ~~sufficient~~ to effect a change in porosity of the cell of the target tissue sufficient to facilitate an entry of a desired molecule into the interior of the cell.

12. (Currently Amended) The system recited in Claim 11, wherein the applicator applies the electric field ~~comprising a duration of at least 100ms~~ for a duration of 100ms to 100 sec.

13. (Cancelled)

14. (Original) The system recited in Claim 11, wherein the low-level electric field has a field strength comprising 200V/cm or less.

15. (Cancelled)

16. (Original) The system recited in Claim 11, wherein the electric field comprises a pulse selected from a group consisting of square, rectangular, exponentially decaying, exponentially increasing, bipolar, and sinusoidal; waveforms having a nongeometrically characterizable shape; waveforms characterizable by a mathematical function; waveforms characterizable by a mathematical approximation; waveforms with at least one of an AC or a DC offset signal; and waveforms without an AC or a DC offset signal.

17. (Cancelled)

18. (Previously Amended) The system recited in Claim 11, wherein the molecule introducer is selected from a group consisting of a syringe, a jet injector, an oral dosage, a transdermal deliverer, a tissue infuser, and a blood vessel infuser.

19. (Cancelled)

20. (Previously Amended) The system recited in Claim 11, wherein the target tissue is selected from a group consisting a skin, tumor, muscle, blood, blood

vessel, brain, lymph, liver, pancreas, bone, colon, cardiac, lung, breast, testes, cornea, prostate and intestine.

21. (New) A method for facilitating the delivery of a desired molecule into a target tissue comprising the steps of:

introducing a molecule into a target tissue comprising a cell; and

applying a continuous low-level electric field to the target tissue for a duration of 200ms to 20 minutes to effect a change in porosity of the cell of the target tissue sufficient to facilitate entry of a desired molecule into an interior of the cell.

22. (New) The method recited in Claim 21, wherein the duration of the applying step ~~comprises a duration of at least 100m seconds~~ is in a range of 100ms to 100 sec.

23. (New) The method recited in Claim 21, wherein the low-level electric field has a field strength comprising 200V/cm or less.

24. (New) The method recited in Claim 21, wherein the applying step comprises applying a plurality of substantially continuous low-level electric pulses to the target tissue, wherein the duration of each substantially continuous low-level electric field is sufficient to effect a change is porosity of the cell of the target tissue sufficient to facilitate entry of a desired molecule into an interior of the cell.

25. (New) The method recited in Claim 21, wherein the electric field comprises a pulse selected from a group of waveforms consisting of square, rectangular, exponentially decaying, exponentially increasing, bipolar, and sinusoidal; waveforms having a nongeometrically characterizable shape;

waveforms characterizable by a mathematical function; waveforms characterizable by a mathematical approximation; waveforms with at least one of an AC or a DC offset signal; and waveforms without an AC or a DC offset signal.

26. (New) The method recited in Claim 25, wherein the electric field comprises a pulse comprising a combination of at least two of the pulses selected from the group of waveforms.

27. (New) The method recited in Claim 21, wherein the introducing step comprises the step selected from a group consisting of syringe injection, jet injection, oral dosing, transdermal delivery, infusion into tissue, and infusion into a blood vessel.

28. (New) The method recited in Claim 21, wherein the target tissue is selected from a group consisting of skin, tumor, muscle, blood, blood vessel, brain, lymph, liver, pancreas, bone, colon, cardiac, lung, breast, testes, cornea, prostate, and intestine.

29. (New) A system for facilitating the delivery of a desired molecule into a target tissue comprising:

a molecule introducer adapted to introduce a molecule into a target tissue comprising a cell; and

an applicator for applying a continuous low-level electric field to the target tissue for a duration of 200ms to 20 minutes to effect a change in porosity of the cell of the target tissue sufficient to facilitate an entry of a desired molecule into the interior of the cell.

30. (New) The system recited in Claim 29, wherein the applicator applies the electric field for a duration of 100ms to 100 sec.

31. (New) The system recited in Claim 29, wherein the low-level electric field has a field strength comprising 200V/cm or less.

32. (New) The system recited in Claim 29, wherein the applicator applies the low-level electric field in a series of electric pulses.

33. (New) The system recited in Claim 29, wherein the electric field comprises a pulse selected from a group consisting of square, rectangular, exponentially decaying, exponentially increasing, bipolar, and sinusoidal; waveforms having a nongeometrically characterizable shape; waveforms characterizable by a mathematical function; waveforms characterizable by a mathematical approximation; waveforms with at least one of an AC or a DC offset signal; and waveforms without an AC or a DC offset signal.

34. (New) The system recited in Claim 33, wherein the electric field comprises a pulse comprising a combination of at least two of the pulses selected from the group of waveforms.

35. (New) The system recited in Claim 29, wherein the molecule introducer is selected from a group consisting of a syringe, a jet injector, an oral dosage, a transdermal deliverer, a tissue infuser, and a blood vessel infuser.

36. (New) The system recited in Claim 29, wherein the target tissue is selected from a group consisting a skin, tumor, muscle, blood, blood vessel, brain, lymph, liver, pancreas, bone, colon, cardiac, lung, breast, testes, cornea, prostate and intestine.